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**PHYSICAL FITNESS RESULTS ANNOUNCED  
FOR CALIFORNIA STUDENTS**

SACRAMENTO—State Superintendent of Public Instruction Delaine Eastin today announced the results of last spring's physical fitness testing of California students in grades five, seven and nine.

Approximately 90 percent of school districts submitted data in 2001—an increase of 32 percent from 1999, the last year the test was given. The increase in district participation resulted in a 13 percent increase in the number of students tested.

Students must meet the minimum fitness standards for *all* six areas of the test to be considered fit. Seventy-seven percent of students in the grades tested could not achieve that goal. However, 49 percent of students tested passed at least 5 of the 6 fitness standards.

The percentage of students considered fit increased from 20 percent in 1999 to 23 percent. In addition, there was a decrease from 6.8 percent to 4.5 percent in the number of students that achieved 0 of 6 fitness standards.

Overall, there were no major changes between the 1999 and 2001 physical fitness test results. The most recent results also showed that 21 percent of the students in the fifth grade, 25 percent in the seventh grade, and 23 percent in the ninth grade met all six fitness standards.

“I am concerned that more students were not successful in meeting all six fitness standards. Especially alarming, is that nearly half were unable to achieve the minimum fitness standard for aerobic capacity, which is perhaps the most important indicator of physical fitness,” Eastin said.

“Still, I am gratified that so many more schools have taken an active role in developing and promoting the physical, mental, emotional, and social health of their

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students. It is critical that schools see this as important and incorporate programs that provide students with the knowledge and abilities needed to maintain active and healthy lifestyles.”

Last spring, more than one million students participated in statewide physical performance testing re-established by Assembly Bill 265 in 1995. The law requires that school districts administer a physical fitness test, designated by the State Board of Education, to all fifth, seventh, and ninth graders annually.

Senate Bill 896, approved in 1998, requires the California Department of Education (CDE) to report results to the Governor and Legislature at least once every two years. The designated test used was the Fitnessgram, developed by the Cooper Institute for Aerobics Research.

“In a society that tends to be mechanized, stress-ridden, and sedentary, our children need a well-planned program that receives strong support within the school and is understood and reinforced at home and in the community. It is essential that health and physical education be an integral part of every school’s educational program to balance and contribute to children’s academic learning,” said Eastin.

The Fitnessgram in 2001 assessed six major fitness areas, including aerobic capacity (cardiovascular endurance), body composition (percent of body fat), abdominal strength and endurance, trunk strength and flexibility, upper body strength and endurance, and overall flexibility.

A number of testing options (see Attachment I) were provided so that all students, including those with special needs, had the opportunity to participate. Students who were not physically able to take the entire test were given as many areas of the test as their condition allowed. Students were evaluated using standards appropriate for their age and gender.

Additional results indicate that in the fifth and seventh grades, more females than males met all six fitness standards, while in the ninth grade, more males than females did. Across all grade levels, more females than males were in the healthy fitness zone for flexibility, body composition, and trunk extension strength, while more males than females were in the fitness zone for abdominal strength and upper body strength.

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Those students that were tested in the seventh and ninth grades in 2001 were the same group of students tested in the fifth and seventh grades in 1999. The number of students that achieved 6 of 6 fitness standards in the seventh grade increased 5 percent from fifth grade results in 1999.

In addition, the number of students that achieved 6 of 6 standards in the ninth grade remained the same as the seventh grade results in 1999. The percentage of female and male students who achieved 6 of 6 standards increased in grades five, seven and nine. Ninth grade males who increased by 4.5 percent from 1999 achieved the greatest improvement.

A further breakdown of the results showed that 42 percent to 51 percent of students across the fifth, seventh, and ninth grades did not meet the minimum fitness standard for aerobic capacity. More than 31 percent did not meet the standards for body composition, upper body strength, and flexibility. The strongest showing across all grades was in trunk strength, where only 14 percent to 18 percent of the students did not meet the minimum standard. The second strongest area was abdominal strength, where 19 percent to 21 percent did not meet the standard.

“Both males and females from all ethnic backgrounds could benefit from a greater emphasis on all areas of physical fitness, especially aerobic capacity, body composition, upper body strength and flexibility,” said Eastin. “I encourage districts and schools to use the data from this test to examine their physical education programs and plan improvements in their current instruction.

“It is important that schools develop programs designed to provide students with the knowledge and abilities needed to maintain active and healthy lifestyles,” she said. “The healthy, physically active child is more likely to be academically motivated, alert, and successful.”

The 2001 physical fitness results for schools, districts, counties, and the state are available on the CDE’s Web site: <http://www.cde.ca.gov/statetests/pe/pe.html>. No individual student data will be reported on the Internet.

**For more information, contact Debbie Vigil in the CDE’s Standards and Assessment Division at (916) 657-3011.**

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**Attachment**

## **Attachment I: Test Description**

### **Description of Test**

The *Fitnessgram* was developed by the Cooper Institute for Aerobics Research in Dallas, Texas and endorsed by the American Alliance for Health, Physical Education, Recreation, and Dance. The primary goal of the *Fitnessgram* program is to assist students in establishing physical activity as part of their daily lives. Because of this goal, *Fitnessgram* provides a number of options for each performance task so that all students, including those with special needs, have the maximum opportunity to complete the test. This availability of options is especially important in measurement of body composition, which is the component of physical fitness that tends to be the most controversial due to assessment method. With additional alternatives for body composition measurement, districts were more comfortable completing that section of the fitness test.

Physical fitness consists of three components: 1) aerobic capacity, 2) body composition, and 3) muscular strength, endurance, and flexibility. To ensure thorough measurement of all three components, the *Fitnessgram* test is made up of the following six major fitness areas with several performance tasks for each.

#### **Aerobic Capacity**

- Pacer
- Mile Walk/Run
- Walk Test

#### **Body Composition**

- Percent Fat
- Body Mass Index

#### **Abdominal Strength and Endurance**

- Curl-up

#### **Trunk Extensor Strength and Flexibility**

- Trunk Lift

#### **Upper Body Strength and Flexibility**

- Push-up
- Modified Pull-up
- Pull-up
- Flexed Arm Hang

#### **Flexibility**

- Back-saver Sit and Reach
- Shoulder Stretch

To complete the *Fitnessgram*, students were required to be tested in the following:

- one of the options from aerobic capacity
- one of the options from body composition
- the curl-up test
- the trunk lift test
- one of the options from upper body strength
- one of the options from flexibility

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A brief description of the major areas of *Fitnessgram* and the alternative tasks are included here.

**Aerobic Capacity** This is perhaps the most important indicator of physical fitness and assesses the capacity of the cardiorespiratory system by measuring endurance.

*The Pacer (Progressive Aerobic Cardiovascular Endurance Run)* This is a multi-stage fitness test set to music, which provides a valid, fun alternative to the customary distance run. It is strongly encouraged for students K – 3, but may be used for all ages. The objective is to run as long as possible back and forth across a 20-meter distance at a specified pace that gets faster each minute.

*One Mile Walk/Run* The objective is to walk and/or run a mile distance at the fastest pace possible.

*Walk Test* The objective is to walk a one-mile distance as quickly as possible while maintaining a constant walking pace the entire distance. This test is for students ages 13 and older. It is scored in minutes, seconds, and heart rate.

**Body Composition** Body composition results provide an estimation of the percent of a student's weight that is fat in contrast to the "fat-free" body mass, muscles, bones, and organs.

*Skinfold Measurements* Measurements of the thickness of the skinfold on the back of the upper arm and the inside of the right calf are taken using a device called a skinfold caliper. A formula is used to calculate percent body fat using these measurements.

*Body Mass Index* This test provides an indication of a student's weight relative to his or her height. Height and weight measures are inserted into a formula and a body mass index number is calculated. Although not as accurate an indicator of body composition, districts and schools find this measurement less controversial than skinfold measurements.

**Abdominal Strength and Endurance** Abdominal strength and endurance are important in promoting good posture and correct pelvic alignment. Strength and endurance of the abdominal muscles are important in maintaining low back health.

*Curl-up Test* The objective of this test is to complete as many curl-ups as possible up to a maximum of 75 at a specified pace.

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**Trunk Extensor and Flexibility** This test is related to low back health and vertebral alignment.

*Trunk Lift* The objective of this test is to lift the upper body a maximum of 12 inches off the floor using the muscles of the back and hold the position to allow for the measurement.

**Upper Body Strength and Endurance** This test measures the strength and endurance of the upper body and is related to maintenance of correct posture. It is important to have strong muscles that can work forcefully and/or over a period of time.

*Push-up* The objective of this test is to complete as many push-ups as possible at a specified pace.

*Modified Pull-up* The objective of this test is to successfully complete as many modified pull-ups as possible.

*Pull-up* The objective of this test is to correctly complete as many pull-ups as possible.

*Flexed Arm Hang* The objective of this test is to hang with the chin above a bar as long as possible.

**Flexibility** This test measures joint flexibility which is important to functional health.

*Back Saver Sit and Reach* The objective is to assess the flexibility of the lower back and posterior thigh. The student should be able to reach a specified distance while sitting at a sit-and-reach box. Both the right and left side of the body is measured.

*Shoulder Stretch* This is a simple test of upper body flexibility. The student should be able to touch the fingertips together behind the back by reaching over the shoulder and under the elbow.

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